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APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED. Computer Assisted Deployment Planning Program (CADEPP)

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Final Report - 6 June 1975



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Prepared in partial fulfillment of graduation requirements for:

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This study was prepared by a student(s) in partial fulfillment of graduation requirements for the U.S. Army Command and General Staff College.

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20. ABSTRACT (Continue on reverse side if reseasesy and identify by block number)

See Reverse Side

This document describes the Computer Assisted Deployment Planning

Program (CADEPP) and provides specific instructions for its use. CADEPP

has been designed under the auspices of a student and faculty Strategic

Mobility Study Effort to support ADP instructional requirements at the

US Army Command and General Staff College. CADEPP has application throughout the CAC community and can be used in areas other than strategic mobility.

CADEPP currently has two basic components: a data base (the Type Unit

Force File) and a three part application program (the Movement Characteristics Identifier, the Gross Airlift Planner, and the Airlift

Feasibility Estimator). Each of these components is described in detail

in Part I of this document.

Copies of the program have been forwarded to the Air Command and Staff College, FORSCOM, and IYI Corps at their request. CADEPP is a first generation computer system representing the initial effort to provide the USACGSC with a computer assisted deployment planning capability. It is intended that the system will be expanded and refined over time through a continuing student-faculty effort.

U.S. ARMY COMMAND AND GENERAL STAFF COLLECE

CADEPP

COMPUTER ASSISTED DEPLOYMENT PLANNING PROGRAM

An ADP instructional support program prepared by the Joint and Combined Operations Committee, Department of Strategy.

COMPUTER ASSISTED DEPLOYMENT PLANNING PROGRAM (CADEPP)

Introduction

Part I - System Description

- A Type Unit Force File (TUFF)
- B Movement Characteristics Identifier (MCI)
- C Gross Airlift Planner (GAP)
- D Airlift Feasibility Estimator (AFE)

Appendix A to Part I - Unit Record Description and Source Documentation

Part II - User Instructions

Part III - Type Unit Force File Index

Introduction

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Student Participants: LTC Cassius Mullen

Major Eddie Sims

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LT Thomas Barger, MISO

A - The Type Unit Force File (TUFF)

- 1. The Type Unit Force File (TUFF) is an information file containing basic movement data for selected standard units. The data on Army units has been extracted from the Type Unit Data Army (TUDA) file, a Department of Army logistics information file, and is based on 100% TOE strength and equipment. Only one variation of each type unit has been included in the file. Data on other Service forces has been extracted from appropriate documents.
- 2. Each type unit has been assigned a five character alphanumeric Unit Entry Code (UEC). The first character represents Service (A, N, F); the second represents force category (combat, combat support, combat service support); the third character is unit unique; the last two characters are numeric and can indicate subordination or further identify a particular type unit.
- 3. A record is maintained for each separate type unit. Record information includes the following. (See Appendix A.)
 - a. Unit Entry Code.
 - b. Unit Name.
 - c. Standard Reference Code.
 - d. Unit Strength.
 - e. Short tons air transportable in CRAF, C130, C141, and C5 aircraft.
- f. Measurement tons air transportable in CRAF, C130, C141, and C5 aircraft.
 - g. Load planning factors for CRAF, C130, C141, and C5 aircraft.
 - h. Non air transportable short tonnage and measurement tonnage.
 - 1. Short tons of accompanying supplies (1 day).
- B The Movement Characteristics Identifier (MCI).

This portion of the program identifies for the planner specific unit related movement characteristics, including unit strength, bulk cargo, outsize cargo and non-airtransportable cargo. The program accesses the Type Unit Force File through the Unit Entry Code entered by the planner. Both single and multiple entries are accepted. The planner can isolate movement

characteristics for subordinate units down to maneuver battallons and can tailor forces by determining the mix and number of maneuver battalions.

- C Gross Airlift Planner (GAP).
- 1. The Gross Airlift Planner (GAP) provides the deployment planner with an initial estimate of gross airlift requirements for a deploying force both with and without CRAF cargo aircraft. It identifies requirements using the following criteria:
 - a. C5 aircraft are used only for outsize loads.
- b. CRAF cargo aircraft are used only for TOE equipment compatible with aircraft capabilities.
 - c. All other cargo is transported by C141 aircraft.
- d. CRAF passenger aircraft are used to transport personnel not accompanying unit cargo.
- 2. The program accesses the Type Unit Force File (TUFF) through the Unit Entry Code and determines the number of aircraft cargo sorties, the number of accompanying personnel, and the number of passengers requiring transportation on other than cargo aircraft for each type unit. When used in conjunction with the Movement Characteristics Identifier (MCI) the program automatically determines airlift requirements for the force entered in the MCI. When used separately the user must specify units by the appropriate Unit Entry Code.

D - Airlift Feasibility Estimator (AFE).

- 1. The Airlift Feasibility Estimator (AFE) determines for the planner the round trip flying time, the number of sorties launched per day, the take-off interval between aircraft, the projected closure data for each unit in the deploying force, the accumulative daily force build-up in the area of operations, the daily resupply requirement and the total sorties by type aircraft utilized during deployment. Additionally, if strategic airlift assets are used for resupply, the necessary sortie requirement is included in the daily closure computations.
- 2. In order to activate the Airlift Feasibility Estimator, the planner must build a planning factor file by responding to questions displayed at the terminal. The information in the planning factor file is required to perform the mathematical calculations used in determining closure data.

Unit Record Description and Source Documentation

1. Unit Record Description:

| Item | Field(s) | Description | Example |
|------|----------|-------------------------------------|--------------|
| 1 | 1-4 | Unit Entry Code | ACAØØ |
| 2 | 5–6 | Unit Name | Abn Div |
| 3 | 7–8 | Standard Reference Code | 57000Н310 00 |
| 4 | 9 | Unit Strength | 14128 |
| 5 | 10 | CRAF(C) - Short Tons | 1416 |
| 6 | 11 | CRAF(C) - Measurement Tons | 4666 |
| 7 | 12 | CRAF(C) - Planning ACL | 32.0 |
| 8 | 13 | C130 - Short Tons | 7118 |
| 9 | 14 | C130 - Measurement Tons | 41406 |
| 10 | 15 | C130 - Planning ACL | 10.6 |
| 11 | 16 | C141 - Short Tons | |
| 12 | 17 | C141 - Measurement Tons | |
| 13 | 18 | C141 - Planning ACL | 13.9 |
| 14 | 19 | C5 - Short Tons | 1585 |
| 15 | 20 | C5 - Measurement Tons | 11519 |
| 16 | 21 | C5 - Planning ACL | 54.6 |
| 17 | 22 | Short Tons Non Air Transportable | |
| 18 | 23 | Measurement Tons NAT | - |
| 19 | 24 | # units if more than one | - |
| 20 | 25 | One day Accomp Supplies S/T | 755.8 |

2. Source Documentation

Item 1 - Assigned by programmer.

Items 2, 3, 4, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, extracted from the Type Unit Data Army (TUDA) File prepared by DA DCSLOG. Data current as of Spring 1974.

Items 7, 10, 13, 16 - Extracted from AFM 76-2.

Item 19 - Determined by programmer.

from the Department of Logistics:

Daily Consumption Rates in pounds per may per day:

Class 1 - 6.70

2 - 3.26

3 - 47.80

4 - 8.50

5 - 31.29

6 - 3.20

7 - 4.27

8 - 0.35

9 - 1.52

10 - -

106.89 or 107 lbs/man/day

1. Prior to Computer Operation.

- a. CADEPP is a relatively extensive program and requires a considerable amount of time to run a lengthy force list in its entirety. It is therefore helpful if you arrive at certain preliminary decisions prior to activating the program.
- b. First, you should have established a basic force list, knowing that you will have repeated opportunities to change that list during program operation. Certain parts of CADEPP may be helpful to you during force list development. If, for example, you are considering the merits of several similar units you may want to compare basic movement characteristics of those units. In that case activate the computer and use the Movement Characteristics Identifier (MCI) to determine that information.
- c. Having established an initial force list it will be helpful if the units on that list are placed in the desired movement sequence. You will have an opportunity during the CADEPP operation to change movement priorities, however, time can be saved by keeping such changes to a minimum.
- d. Next you must go to the Type Unit Force File Index (Part III) and determine the Unit Entry Code for each type unit on the force list. The Unit Entry Code should be listed next to each entry on the list. Additionally, for other than standard combat units (Airborne Division, Air Assault Division, Separate Airborne Brigade) the number and mix of maneuver battalions should be identified.
- e. The following is a sample of a typical planner's worksheet for a deployment force package including Army and Air Force Units.

| Priority | Unit | Unit Entry Code | Maneuver Units |
|----------|----------------------|-----------------|----------------|
| 1 | Airborne Division | ACAØØ | |
| 2 | FA BN, 155 (SP) | ASCØØ | |
| 3 | Tac Ftr Sq | FFSØ1 | 18F4E |
| 4 | Corps HQ | ACLØØ | |
| 5 | Sig Bn (Corps) | ASO Ø Ø | |
| 6 | TAM CO (DS) | ALCØ3 | |
| 7 | Air Assault Division | ACB Ø Ø | |

| 8 | FA BN, 155 (SP) | ASCØØ | |
|----|-------------------|-------|-----------------------|
| 9 | ADA BN, Hawk (SP) | ASSØØ | |
| 10 | Tac Ftr Sqd | FFSØ2 | 24F111 |
| 11 | AF For Hq (3-Sq) | FCCØ1 | |
| 12 | Cbt Spt Gp (1200) | FCSØ3 | |
| 13 | Inf Div | ACEØØ | 2 Tk, 6 IN, 2 Mech |
| 14 | HHC, COSCOM | ALAØ1 | |
| 15 | Trans Term Svc Co | ALBØ9 | |

2. CADEPP Computer Operations.

- a. After LOGIN is completed, the following sequence is commenced: $\label{eq:commenced} \texttt{C} \emptyset \texttt{MMAND} \texttt{EDIT} \emptyset \texttt{R}$
- $. . \underline{F}, \underline{F}$
- . . FETCH, CADEPP, CGSC
- . . E, CADEPP, S
- PF CYCLE NØ. = 001
- . . ETL, 100
- . . RU, F

6.031 CP SECONDS COMPILATION TIME

(Note: Program is now running. The first program statement may be printed before the compile message; this is normal. Simply ignore the compile message in such case and answer the question presented to you by the program. During the program, follow all printed instructions explicitly.

b. You will now be offered a statement of program capabilities. Next you will be asked whether or not you desire to identify movement characteristics for your force. If you do, CADEPP will present you with a single or multiple entry option. If you do not, CADEPP will go directly to the next routine (see para F). Regardless of the entry mode, enter units using the Unit Entry Code (UEC). (Note: The last two characters of the UEC (ACAØØ) are numeric. The character Ø in the UEC represents a zero. Many computer terminal keyboards, however, use the Ø to represent the alphabetic letter O. In entering the UEC, therefore, caution must be exercised to insure that the proper numeric entry is made.)

c. If you use the multiple entry option, enter each Unit Entry Code,

return the carriage, then wait for the request for next entry. When the last unit has been entered, the letter "D" indicates that the list is complete.

The following is an example of multiple entry using the units listed in para le above.

ENTER EACH UNIT ENTRY CODE, THEN CARRIAGE RETURN. WHEN ALL UNITS ARE IN, ENTER THE LETTER D.

ACA00

NEXT ENTRY...

NEXT ENTRY ...

NEXT ENTRY... ASC00 NEXT ENTRY ... FFS01 NEXT ENTRY ... ACLOO NEXT ENTRY ... ASØ00 NEXT ENTRY... ALCO3 NEXT ENTRY... **ACBOO** NEXT ENTRY ... ASC00 NEXT ENTRY ... FFS03 NEXT ENTRY ... FCC01 NEXT ENTRY... FCSO3 NEXT ENTRY ... ACE00 HØW MANY TANK BNS IN DIV (SEP BDE)? HØW MANY INF BNS (NØN-MECH) IN DIV (SEP BDE)? HØW MANY INF BNS (MECH) IN DIV (SEP BDE)? 2 NEXT ENTRY ... ALA01

ALBO9

d. The Movement Characteristics Identifier also provides you with an opportunity to selectively review the internal structure of Army combat units which you are considering for deployment. To do so, simply enter the first 3 characters of the UEC and then the carriage return.

| FØLLØWING ARE THØSE UNITS | SUBØRDINAT | E TØ | THE AIR AS | SAULT DIV | | |
|----------------------------|------------|------|------------|-----------|---------|-----|
| ENTRY UNIT NAME | | | STREN | BULK ST | OTSZ ST | NAT |
| ACBO1 HQ & HQ CØ | 6700H110 | 01 | 192. | 103.4 | 0.0 | 0.0 |
| ACBO2 MP CO | 6700H110 | | 158. | 92.1 | 0.0 | 0.0 |
| ACBO3 AVN GP | 6700H110 | 03 | 2581. | 1955.4 | 958.0 | 0.0 |
| ACBO4 SIG BN | 6700H110 | 00 | 461. | 310.4 | 0.0 | 0.0 |
| ACBO5 EN BN | 6700H110 | 05 | 723. | 1027.2 | 162.6 | 0.0 |
| ACBO6 3 BDE HQ & HQ CO | 6700H110 | 06 | 471. | 212.3 | 25.7 | 0.0 |
| ACBO7 AIR CAV SQ | 6700H110 | 07 | 932. | 572.8 | 157.6 | 0.0 |
| ACBOS DIV ARTY | 6700H110 | 08 | 2479. | 1795.8 | 125.2 | 0.0 |
| ACBO9 HHC SPT CMD | 6700H110 | 09 | 175. | 116.1 | 67.8 | 0.0 |
| ACB10 DIV MAT MGT CTR | 6700H110 | 10 | 150. | 64.1 | 8.2 | 0.0 |
| ACB11 AG CØ SPT CMD | 6700H110 | 11 | 274. | 62.2 | 15.7 | 0.0 |
| ACB12 FIN CØ SPT CMD | 6700H110 | 12 | 114. | 34.8 | 0.0 | 0.0 |
| ACB13 MED BN SPT C | €700H110 | 13 | 397. | 251.6 | 25.7 | 0.0 |
| ACB14 SUP & SER BN SPT CMD | 6700H110 | 14 | 496. | 633.0 | 142.7 | 0.0 |
| ACB15 MAINT BN SPT CMD | 6700H110 | 15 | 568. | 605.2 | 152.3 | 0.0 |
| ACB16 TRANS ACFT MNT BN | 6700H110 | 16 | 517. | 454.3 | 128.4 | 0.0 |
| ACB17 ADA BN | 6700H110 | 17 | 484. | 508.6 | 0.0 | 0.0 |
| ACB18 9 IN BN | 6700H110 | 18 | 6516. | 552.1 | 0.0 | 0.0 |

NØTICETHE ABØVE HAVE NØT BEEN ADDED TØ YØUR FØRCE!!

e. Finally, the Movement Characteristics Identifier will permit you to deploy Army divisions in brigade deployment echelons interspersed throughout the total force movement. Enter the division UEC, but change the final character to A, B or C, representing the three reinforced brigades of the division.

NEXT ENTRY... ACAOA

NEXT ENTRY... FFSO1

NEXT ENTRY... ACAOB

NEXT ENTRY... ACAOB

NEXT ENTRY... ACAOC

MEXT ENTRY... ACAOC

MEXT ENTRY... ACAOC

DØ YØU DESIRE A REVIEW ØF ENTRIES? (YES ØR NØ) YES

STVIEW YOUR ENTRIES

1 = ACAOA
ABN BDE (+)
2 = ASCOO
FA BN 155MM SP
3 = FFSO1
TAC FIGHTER SQ
4 = ACAOB
ABN BDE (+)
5 = ACLOO
HHC-CPS ØR ABN CPS
6 = ASØOO
SIG BN (CØRPS)
7 = ACAOC
ABN BDE (+)

f. After the last entry, you will be given an opportunity to review your entries, and to replace or delete units on the force list or to add new units.

| DISTAL | TALL | VOLU | Th. | ENTR | 1770 |
|--------|------|------|-----|------|------|
| | | | | | |

| 1= ACA00 | AIRBORNE DIV |
|-------------------|---|
| 2= ASCOO | FA BN 155MM SP |
| 3= FFS01 | TAC FIGHTER SQ |
| 4= ACLOO | HHC-CPS ØR ABN CPS |
| 5= ASØ00 | SIG BN (CØRPS) |
| 6= ALCO3 | CØ TRANS ACF MAINT |
| 7= ACBOO | AIR ASSAULT DIV |
| 8= ASC00 | FA BN 155MM SP |
| 9= ASSOO | ADA BN HAWK (SP) |
| 10= FFSO3 | TAC FIGHTER SQ |
| 11= FCCO1 | AFFØR HQ |
| 12= FCSO3 | CBT SPT GP |
| 13= ACEOO | |
| 14= ALA01 | HQ CØRPS SPT CMD |
| 15= ALBO9 | TRANS TERM SVC CØ |
| DØ YØU WISH TØ RE | PLACE ANY ØF THE ABØVE UNITS? (YES ØR NØ)? NØ |
| | |
| DØ YØU DESIRE TØ | DELETE ANY ØF THE ABØVE (YES ØR NØ)? NØ |
| | |
| DØ YØU DESIRE TØ | ADD MØRE UNITS (YES ØR NØ)? NØ |

g. After all changes to the force list have been made the unit movement characteristics will be printed and summarized.

THIS IS A LIST OF UNITS TO BE DEPLOYED

| ENTRY | UNIT NAME | STD REF CODE | STREN | BULK ST | OTSZ ST | NAT |
|----------|-------------------|--------------|--------|---------|---------|-------|
| 1=ACA00 | AIRBORNE DIV | 5700H310 00 | 14128. | 8534.0 | 1585.0 | 0.0 |
| 2=ASC00 | FA BN 155MM SP | 06365H000 00 | 540. | 291.5 | 990.2 | 0.0 |
| 3=FFS01 | TAC FIGHTER SQ | 18F4E | 470. | 341.6 | 0.0 | 0.0 |
| 4=ACLOO | HHC-CPS OR ABN CP | 52001H220 00 | 255. | 77.3 | 82.0 | 0.0 |
| 5=ASØ00 | SIG BN (CORPS) | 11015G720 00 | 1040. | 1717.5 | 71.4 | 0.0 |
| 6=ALCO3 | CO TRANS ACF MAIN | 55457Н300 00 | 230. | 277.5 | 265.1 | 0.0 |
| 7=ACB00 | AIR ASSAULT DIV | 6700H110 00 | 17688. | 9452.0 | 1971.0 | 0.0 |
| 8=ASC00 | FA BN 155MM SP | 06365Н000 00 | 540. | 291.5 | 990.2 | 0.0 |
| 9=ASS00 | ADA BN HAWK (SP) | 44255H000 00 | 740. | 1485.3 | 649.8 | 0.0 |
| 10=FFS03 | TAC FIGHTER SQ | 6F4D(WW) | 174. | 116.5 | 0.0 | 0.0 |
| 11=FCCO1 | AFFOR HQ | 1-3SQ | 636. | 1522.3 | 0.0 | 0.0 |
| 12=FCS03 | CBT SPT GP | BP-1200 | 294. | 497.8 | 0.0 | 0.0 |
| 13=ACE00 | IN DIV | 0700H010 00 | 16228. | 14680.6 | 15326.0 | 162.0 |
| 14=ALA01 | HQ CORPS SPT CMD | 54022G920 00 | 280. | 61.2 | 16.9 | 0:0 |
| 15=ALB09 | TRANS TERM SVC CO | 55117H310 00 | 313. | 133.8 | 285.9 | 0.0 |

LISTED BELØW ARE TØTALS FØR THE ABØVE SELECTED UNITS STREN BULK CGØ ØTSZ CGØ NAT 39480.4 22233.5 162.0

h. You will now be offered the option of determining the gross airlift requirements for your force. If you decline this option, CADEPP will go to the next routine (see para i). Once activated, this portion of the program provides you with approximate number of aircraft needed to lift each unit, both with and without CRAF cargo aircraft. It permits you to compare the relative airlift requirements of two or more units and to evaluate the effect of using CRAF cargo aircraft.

DØ YØU WISH TØ MAKE ANY CHANGES IN YØUR FØRCE BEFØRE CØNTINUING? (YES ØR NØ) NØ

| THE FOLLS | WING DØES NØT UTILIZE | CRAF CA | RGØ AII | RCRAFT. | | | |
|-----------|-----------------------|---------|---------|---------|-----|------|------|
| CODE | UNIT NAME | CRAF | | -141 | C- | 5 | CRAF |
| | | CGØ | SRT | PAX | SRT | PAX | PAX |
| 1=ACA00 | AIRBORNE DIV | 0 | 614 | 8596 | 30 | 2190 | 3342 |
| 2=ASCOO | FA BN 155MM SP | 0 | 14 | 196 | 11 | 344 | 0 |
| 3=FFS01 | TAC FIGHTER SQ | 0 | 16 | 224 | 0 | 0 | 246 |
| | HHC-CPS ØR ABN CPS | 0 | 6 | 84 | 2 | 146 | 25 |
| 5=ASØ00 | SI N (CØRPS) | 0 | 79 | 1040 | 2 | 0 | 0 |
| 6=ALCO3 | CO TRANS ACF MAINT | 0 | 13 | 182 | 4 | 48 | 0 |
| 7=ACB00 | AIR ASSAULT DIV | 0 | 733 | 10262 | 66 | 4818 | 2608 |
| 8=ASCOO | FA BN 155MM SP | 0 | 14 | 196 | 11 | 344 | 0 |
| 9=ASS00 | ADA BN HAWK (SP) | 0 | 68 | 740 | 10 | 0 | 0 |
| | TAC FIGHTER SQ | 0 | 6 | 84 | 0 | 0 | 90 |
| 11=FCCO1 | AFFOR HQ | 0 | 70 | 636 | 0 | 0 | 0 |
| 12=FCSO3 | CBT SPT GP | 0 | 23 | 294 | 0 | 0 | 0 |
| 13=ACE00 | IN DIV | 0 | 816 | 11424 | 198 | 4804 | 0 |
| 14=ALA01 | HQ CORPS SPT CMD | 0 | 3 | 42 | 1 | 73 | 165 |
| | TRANS TERM SVC CO | 0 | 7 | 98 | 5 | 215 | 0 |

LISTED BELØW ARE THE TØTAL AIRCRAFT SØRTIES AND ACCØMPANING PASSENGERS REQUIRED TØ DEPLØY THE UNITS SELECTED

| C-: | 141 | C- | -5 | | CRA | AF(P) |
|---------|---------|-------|---------|-------|------|---------|
| SØRTIES | SØRTIES | PAX | SØRTIES | PAX | PAX | SØRTIES |
| 0 | 2482 | 34098 | 340 | 12982 | 6476 | 40 |

| THE FØLLQ | WING UTILIZES CRAF | CARGØ AIR | CRAFT. | | | | |
|-----------|--------------------|-----------|--------|-------|-----|------|------|
| CODE | UNIT NAME | CRAF | C- | -141 | C- | 5 | CRAF |
| | | CGØ | SRT | PAX | SRT | PAX | PAX |
| 1=ACAOO | AIRBORNE DIV | 45 | 513 | 7182 | 30 | 2190 | 4756 |
| 2=ASC00 | FA BN 155MM SP | 2 | . 12 | 168 | 11 | 372 | 0 |
| 3=FFS01 | TAC FIGHTER SQ | 0 | 16 | 224 | 0 | 0 | 246 |
| 4=ACLOO | HHC-CPS OR ABN CPS | 1 | 4 | 56 | 2 | 146 | 53 |
| 5=ASØCO | SIG BN (CORPS) | 5 | 72 | 1008 | 2 | 32 | 0 |
| 6=ALCO3 | CO TRANS ACF MAINT | 2 | 11 | 154 | 4 | 76 | 0 |
| 7=ACB00 | AIR ASSAULT DIV | 67 | 569 | 7966 | 66 | 4818 | 4904 |
| o=ASCOO | FA BN 155MM SP | 2 | 12 | 168 | 11 | 372 | 0 |
| 9=ASSC0 | ADA BN HAWK (SP) | 3 | 65 | 740 | 10 | 0 | 0 |
| 10=FFS03 | TAC FIGHTER SQ | U | 6 | 84 | 0 | 0 | 90 |
| 11=FCCO1 | AFFOR HQ | 0 | 70 | 636 | 0 | 0 | 0 |
| 12=FCS03 | CBT SPT GP | 0 | 23 | 294 | 0 | 0 | 0 |
| 13=ACE00 | IN DIV | 45 | 737 | 10318 | 198 | 5910 | 0 |
| 14=ALA01 | HQ CORPS SPT CMD | 2 | 2 | 28 | 1 | 73 | 179 |
| | TRANS TERM SVC CO | 1 | 6 | 84 | 5 | 229 | 0 |

LISTED BELØW ARE THE TØTAL AIRCRAFT SØRTIES AND ACCØMPANYING PASSENGERS REQUIRED TØ DEPLØY THE UNITS SELECTED

| CRAF(C) | C- | C-141 C-5 | | CRAF(P) | | |
|---------|---------|-----------|---------|---------|-------|---------|
| SØRTIES | SØRTIES | PAX | SØRTIES | PAX | PAX | SØRTIES |
| 175 | 2118 | 29110 | 340 | 14218 | 10228 | 62 |

i. The next portion of CADEPP is the Airlift Feasibility Estimator.

Once you determine that you are ready to plan for deployment, you will be able to change the movement sequence of your force and make any additional changes.

DU YOU DESIRE TO PLAN FOR DEPLOYMENT AT THIS

TIME? (YES ØR NØ) YES

DØ YØU WISH TØ MAKE ANY CHANGES IN YØUR FØRCE BEFØRE CØNTINUING? (YES ØR NØ) NØ

ARE UNITS IN THE CORRECT MOVEMENT SEQUENCE? NO

ENTER LINE NUMBER OF UNIT, COMMA, LINE NUMBER OF UNIT IT IS TO PRECEDE.

WHEN FINISHED, ENTER 0,0

ENTER SEQUENCE CHANGE. 0,0

11,6

REVIEW YOUR ENTRIES

1=ACAOO AIRBØRNE DIV

2=ASCOO FA BN 155MM SP

3=FFSO1 TAC FIGHTER SQ

4=ACLOO HHC-CPS ØR ABN CPS

5=ASØOO SIG BN (CØRPS)

6=FCCO1 AFFØR HQ

7=ALCO3 CØ TRANS ACF MAINT

8=ACBOO AIR ASSAULT DIV

9=ASCOO FA BN 155MM SP

10=ASSOO ADA BN HAWK (SP)

11=FFS03 TAC FIGHTER SQ

12=FCSO3 CBT SPT GP

13=ACEOO IN DIV

14=ALAO1 HQ CØRPS SPT CMD

15=ALBO9 TRANS TERM SVC CØ

ARE UNITS IN THE CORRECT MOVEMENT SEQUENCE? YES

j. Once you are satisfied that units are in the desired sequence you will be asked a series of questions concerning airlift planning factors. You should obtain this data from your instructional material or other planning documents. Once the planning factor file is complete you will receive a print out of basic deployment information for your force.

k. In order to expedite terminal operations you should prepare a worksheet with planning factor data prior to running the Airlift Feasibility Estimator.

Your worksheet should include the following information:

- (1) Distance from POE to POD (N. Miles).
- (2) Aircraft Utilization Rate (Hours).
- (3) Number of C5 and C141 aircraft available for planning purposes.
- (4) Whether or not CRAF aircraft will be used and, if so, the number of cargo and passenger aircraft available.
- (5) Whether or not the force will be resupplied by air and, if so, for how many days.
 - (6) If resupply will be accomplished by air, will it include all

- (7) Will Cl30 aircraft be available for resupply? If so, how many?
- (8) How many days of supply will accompany deploying forces?
- 1. The following is a sample of the Airlift Feasibility Estimator in which a force deploys using only military airlift assets with no resupply or accompanying supply requirement.

WHAT IS THE DISTANCE IN EAUTICAL MILES FROM POE TO POD? 5000

WHAT IS THE AIRCRAFT UTILIZATION RATE IN HOURS? 10

HØW MANY C-5'S ARE AVAILABLE? 65

HØW MANY C-141'S ARE AVAILABLE? 200

DØ YØU WANT TØ USE CRAFT AIRCRAFT? (YES ØR NØ) NØ

WILL STRATEGIC AIRLIFT ASSETS BE USED FOR RESUPPLY? (YES OR NO) NO

| OND WOLD DIVING | C-5 | C-141 | CRAF(C) | CRAF(P) |
|-------------------------------|------|-------|---------|---------|
| RND TRIP FLYING TIME (HRS) | 24.4 | 24.1 | 0.0 | 0.0 |
| SORTIES LAUNCHED PER DAY | 27 | 83 | 0 | 0 |
| TAKEOFF INTERVAL (MIN) | 53.3 | 17.3 | 0.0 | 0.0 |

HOW MANY DAYS OF SUPPLY WILL ACCOMPANY EACH UNIT?

THE FØLLØWING CLØSURE INFØRMATIØN INCLUDES A DAILY STATEMENT ØF RESUPPLY REQUIREMENTS FØR THE SUCCEEDING 24 HØUR PERIØD BASED ØN ACCUMULATIVE STRENGTH IN CØUNTRY. STRATEGIC AIRLIFT ASSETS HAVE NØT BEEN ALLØCATED TØ TRANSPØRT THIS REQUIREMENT.

FØLLØWING IS A DAY BY DAY LISTING ØF DEPLØYING FØRCES

| DATE | UNITS CLOSING | | LD UP IN C BULK(ST) | ØUNTRY OTSZ (ST) | 24 HØUR RESUPPLY REQ |
|--------------|--|----------------|------------------------|---------------------|-------------------------|
| C+ 0 | | 1523. | | 132.0 | 81.4 248.8 |
| C+ 1 C+ 2 | | 4656. 7789. | | 1188.0 2244.0 | 416.3 |
| ?- 3 | | 10922. | 9196.0 | 3300.0 | 583.7 |
| 6. 4 | | 14055. | 11726.0 | 4356.0 | 751.2 |
| ÷ 5 | ATRBORNE DIV TA BN 155MM SP TAC FIGHTER SQ HHC-CPS ØR ABN CPS SIG BN (CØRPS) | 17188. | 14256.0 | 5412.0 | 918.6 |
| | AFFØR HQ | 00001 | 16706.0 | 6460.0 | 1006 1 |
| C+ 6 | CØ TRANS ACF MAINT | 20321. | | 6468.0 | 1086.1 |
| C+ 7 | | 23454. | | | 1253.5 |
| C+- 8 | | 26587. | | | 1420.9 |
| C+ 9 | | 29720. | 24376.0 | 9636.0 | 1588.4 |

| C+10 | | 32853. | 26906.0 10692.0 | 1755.8 |
|------|-------------------|--------|-----------------|--------|
| C+11 | AIR ASSAULT DIV | 35986. | 29436.0 11748.0 | 1923.3 |
| | FA BN 155MM SP | | | |
| C+12 | ADA BN HAWK (SP) | 39119. | 31966.0 12804.0 | 2090.7 |
| | TAC FIGHTER SQ | | | |
| | CBT SPT GP | | | |
| C+13 | | 42252. | 34496.0 13860.0 | 2258.2 |
| C+14 | | 45385. | 27026.0 14916.0 | 2425.6 |
| C+15 | | 48518. | 39480.4 15982.0 | 2593.0 |
| C+16 | | 51651. | 39480.4 17028.0 | 2760.5 |
| C+17 | | 53556. | 39480.4 18084.0 | 2862.3 |
| C+18 | | 53556. | 39480.4 19140.0 | 2862.3 |
| C+19 | | 53556. | 39480.4 20196.0 | 2862.3 |
| C+20 | | 53556. | 39480.4 21252.0 | 2862.3 |
| C+21 | IN DIV | 53556. | 39480.4 22233.5 | 2862.3 |
| | HQ CORPS SPT CMD | | | |
| | TRANS TERM SVC CØ | | | |
| | | | | |

| UNIT NAME | UNIT ENTRY CODE | |
|---------------------------------|-----------------|--|
| COMBAT | | |
| Airborne Division | ACAØØ | |
| Airborne Brigade Package | ACAØA | |
| Airborne Brigade Package | ACAØB | |
| Airborne Brigade Package | ACAØC | |
| Air Assault Division | ACB Ø Ø | |
| Air Assault Brigade Package | ACBØA | |
| Air Assault Brigade Package | АСВФъ | |
| Air Assault Brigade Package | ACBØC | |
| Infantry Division (Mechanized) | ACCØØ | |
| Infantry Brigade (Mech) Package | ACCØA | |
| Infantry Brigade (Mech) Package | АССФВ | |
| Infantry Brigade (Mech) Package | ACC@C | |
| Armor Division | ACD Ø Ø | |
| Armor Brigade Package | ACDØA | |
| Armor Brigade Package | ACD Ø B | |
| Armor Brigade Package | ACD Ø C | |
| Infantry Division | ACE Ø Ø | |
| Infantry Brigade Package | ACEØA | |
| Infantry Brigade Package | ACEØB | |
| Infantry Brigade Package | ACEØC | |
| Air Cavalry Combat Brigade | ACFØØ | |
| Infantry Brigade (Separate) | ACGØØ | |
| Armored Cavalry Regiment | ACHØØ | |
| Tank Battalion | ACIØØ | |
| Infantry Battalion | ACJØØ | |
| Infantry Battalion (Mechanized) | ACKØØ | |
| HHC, Corps or Abn Corps | ACL Ø Ø | |
| Airborne Brigade (Separate) | ACMØØ | |
| Armor Brigade (Separate) | ACNØØ | |

COMBAT SUPPORT

| FA Bn, 3 in (SP) | ASAØØ |
|------------------------|--------|
| FA Bn, 155mm (T) | ASBØØ |
| FA Bn, 1.55mm (SP) | ASCØØ |
| FA Bn, TGT ACG | ASDØØ |
| HHB, FA Gp | ASEØØ |
| FA Bn, 105 T | ABAØØ |
| FA Bn, 175 SP | ABBØØ |
| HHB, Corps Arty | ABCØØ |
| HHC, En Cbt Bde | ΛВЈØØ |
| EN Co, LE (Abn) | AS FØØ |
| EN Co, Flt Brg | ASGØØ |
| EN Bn, Constr | ASHØØ |
| EN Equip Maint Co | ASIØØ |
| EN Cbt Bn (Corps) | ASJØØ |
| EN Water Sup CO | ADAØØ |
| HHC EN Gp | ADBØØ |
| EN Panel Bdg Co | ADCØØ |
| EN Port Const Co | ADEØØ |
| EN Pipeline Const Co | ADFØØ |
| EN Det (Real Estate) | ABEØØ |
| EN Bn, Cbt (Abn) | ABNØØ |
| HHB, Avn Gp (Cbt) | АВНØØ |
| Avn Bn (Cbt) | ASKØØ |
| Avn Co, GS | ASLØØ |
| Avn Co (Corps) | ASMØØ |
| Surv Airplane Co | ASNØØ |
| Avn Co (Atk Hele) | ABIØØ |
| Avm Co (Aslt Hele) | ADIØØ |
| Avn Co (Aslt Spt Hele) | ADJØØ |
| Air Trf Con | ABDØØ |

| UNIT NAME | UNIT ENTRY |
|-----------------------------|----------------|
| HHC, Sig Bde | ABK Ø Ø |
| Sig Bn (Corps) | ASOØØ |
| Sig Bn (Abn Corps) | ASPØØ |
| Signal Bn (Area) | ADOØØ |
| Signal Spt Co | ADPØØ |
| Signal Op Co (ADA) | ADQØØ |
| Signal Co (TROPO) (Lt) | ADRØØ |
| Signal Co (RAD-CAB) | ABL Ø Ø |
| HHB, ADA Gp | ASQØØ |
| ADA Bn, Hawk (Mobile) | ASRØØ |
| ADA Bn, Hawk (SP) | ASSØØ |
| ADA Bn, C/V (SP) | ASTØØ |
| HHB, ADA Bn | ABMØØ |
| ADA Btry (Imp Hawk) | ABGØØ |
| Cml Det CBR (Sample & Anal) | ADGØØ |
| Cml Det CBRE | ADHØØ |
| HHC, ASA Bn (Corps) | ABFØØ |
| ASA Co (Div Spt) | ADLØØ |
| ASA Avn Co | ADMØØ |
| ASA Co (OP) | ADNØØ |
| HHC, MI Bn | ADXØØ |
| MI Co (Corps) | ADTØØ |
| MI Co (Div) | ADWØØ |
| MI Co (CI) | ADUØØ |
| MI Co (Aer Surv) | ADVØØ |
| MI Det (ARS) | ADSØØ |
| COMBAT SERVICE SUPPORT | |
| HHC, Corps Spt Bde/Cmd | ALAØ1 |
| Trans Move Con Cen (FAS) | ALBØ1 |
| нно тмт Ср | ALBØ2 |

CODE

| UNIT NAME | UNIT ENTRY CODE |
|----------------------------|-----------------|
| HHD TMT Bn | ALBØ3 |
| Trans Lt Trk Co (5T) | ALB13 |
| Trans Mdm Trk Co (Cargo) | ALBØ4 |
| Trans Mdm Trk Co (Refer) | ALBØ5 |
| Trans Mdm Trk Co (Petrl) | ALBØ6 |
| Trans Car Co | ALBØ7 |
| Trans Hvy Trk Co | ALBØ8 |
| Trans Term Svc Co | ALBØ9 |
| Trans Term Trf Co | ALB1Ø |
| Trans Mdm Bt Co | ALB11 |
| Trans Hvy Bt Co | ALB12 |
| HHD, Acft Maint Bn (GS) | ALCØ1 |
| Trans Acfr Maint Co (GS) | ALCØ2 |
| Trans Acft Maint Co (DS) | ALCØ3 |
| Trans Flt Cr Maint Co (GS) | ALCØ4 |
| HHB, Maint Bn (DS-GS) | ALCØ5 |
| Maint Co, Rear (DS) | ALCØ6 |
| Maint Co, Fwd (DS) | ALCØ7 |
| Maint Co, LE (GS) | ALCØ8 |
| Maint Co, Hvy (GS) | ALCØ9 |
| Fld Svc Co (GS) | ALC1Ø |
| SJA | |
| HHD, Pers & Admin Bn | ALDØ1 |
| Pers Svc Co | ALDØ2 |
| Postal Svc Org | ALDØ3 |
| Repl Ops Tm | ALDØ4 |
| Admin Svc Det | ALDØ5 |
| Gen Sup Co (GS) | ALDØ6 |
| HHD, MP Bn | ALDØ7 |
| MP Co | ALDØ8 |
| MP Scty Co | ALDIØ |
| MP Gd Co | ALD10 |
| | ALD11 |

| UNIT NAME | HATT DATE |
|----------------------------|------------|
| | UNIT ENTRY |
| MP Hosp Scty Plat | ALD12 |
| MP Corr Fac Plat | ALD13 |
| Fin Sec (Disb) | ALD14 |
| HHC, Spt Gp | ALEØ1 |
| Rep Parts Co (GS) | ALEØ2 |
| Hvy Mat Sup Co | ALEØ3 |
| Svc Co (Coll & Clas) | ALEØ4 |
| Sup & Svc Co (DS) | ALEØ5 |
| HHC, Sup & Svc Bn | ALEØ6 |
| Gen Spt Co (GS) | ALE15 |
| Rear Area Op Cen | ALEØ7 |
| ADPU | ALEØ8 |
| Airdrop Equip Rep & Sup Co | ALEØ9 |
| QM Airdrop Sup Co | ALE1Ø |
| Petr Pipel & Term Co | ALE11 |
| HHC, Petrl Sup Bn | ALE12 |
| Petrl Sup Co | ALE13 |
| Avn Hvy Hele Cơ | ALE14 |
| HHC, Petr Op-Ba | ALE16 |
| Petr Op Co | ALE17 |
| IIID W. I. C | |
| HHD, Med Gp | ALFØ1 |
| Cbt Sup Hosp | ALFØ2 |
| HHD, Med Bn | ALFØ3 |
| Med Amb Co | ALFØ4 |
| Med Clearing Co | ALFØ5 |
| Med Air Amb Co | ALFØ6 |
| Evac Hosp | ALFØ7 |
| HHC, Ammo Gp (DS/GS) | ALGØ1 |
| HHC, Ammo Bn (DS/GS) | ALGØ2 |
| Ammo Co (Conv) | ALGØ3 |
| | |

ALGØ4

Ammo Co (Spec)

CODE

| UNIT NAME | UNIT ENTRY CODE |
|-------------------------------------|-----------------|
| EOD Det | ALGØ5 |
| Shillelagh Spt Det | ALGØ6 |
| Redeye Spt Det | ALGØ7 |
| Msl Mnt Spt Det | ALGØ8 |
| Test Mnt Det (DS/GS) | ALGØ9 |
| Mnt Spt Det | ALG1Ø |
| Shillelagh Mnt Det | ALG11 |
| Redeye Mint Cnt | ALG12 |
| C/V Spt Det (DS/GS) | ALG13 |
| FAAR Det (DS/GS) | ALG14 |
| AIR FORCE UNITS | |
| Tac Ftr Sq (18F-4E) | ffSØ1 |
| Tac Ftr Sq (24F-111) | ffsø2 |
| Tac Ftr Sq (6F-4D) (Wild Weasel) | ffSØ3 |
| Tac Ftr Sq (24A-7D) | FFSØ4 |
| Tac Ftr Con Un (18 OV-10) | ffSØ5 |
| Tew Sq (2 DC130, 2 CH-3, 64 RPV) | FESØ1 |
| Recce Sq (6RF-4C) | FRSØ1 |
| Recce Sq (18RF-4C) | FRSØ2 |
| Air Rescue & Recovery Svce (HH-3E) | FRRØ1 |
| Air Rescue & Recovery Svce (HC-130) | FRRØ2 |
| Air Rescue & Recovery Svce (HH-43) | FRRØ3 |
| AFFOR HQ (1-3 SQ) | FCCØ1 |
| AFFOR HQ (4-6 SQ) | FCCØ2 |
| AFFOR HQ (7-10 SQ) | FCCØ3 |
| Tac Wing Hq (3-5 SQ) | FCCØ4 |
| | ECCA1 |
| AF Bare Base Spt Ele | FCSØ1 |
| Cbt Spt Gp (Base Pop - 400) | FCSØ2 |
| Obt Spt Gp (Base Pop - 1200) | FCSØ3 |
| Cbt Spt Gp (Base Pop - 2400) | FCSØ4 |
| Cbt Spt Gp (Base Pop - 3200) | FCSØ5 |

Cbt Spt Gp (Base Pop - 3600)

FCSØ6

Cbt Spt Gp (Base Pop - 4000)

FCSØ7

OTHER FORCES

COSCOM - A "type" COSCOM capable of supporting a 3 division corps (+). The COSCOM has been further organized into six movement packages each capable of performing all support functions.

| COSCOM | ALPØØ |
|--------|-------|
| Part 1 | ALPØ1 |
| Part 2 | ALPØ2 |
| Part 3 | ALPØ3 |
| Part 4 | ALP#4 |
| Part 5 | ALPØ5 |
| Part 6 | ALPØ6 |

Air Force Support Force - A similar support element has been developed to provide all functional requirements for up to 10 fighter, reconnaissance and tactical airlift squadrons operating from up to 4 bases.

| Air Force Support Element | FLPØØ |
|---------------------------|-------|
| Part 1 | FLPØ1 |
| Part 2 | FLPØ2 |
| Part 3 | FLPØ3 |
| Part 4 | FLPØ4 |

Joint Communication Support Element (JCSE) - The Joint Communications
Support Element (JCSE) is an organization assigned to the JC3 which is
capable of providing initial communications support for a deploying
force. The advance element is known as the "Eye Beam" and includes a
Joint Airborne Communications Center/Command Post. It consists of 8
officers and 55 enlisted personnel and is basically self deployable in
C-130 aircraft. The follow on echelon, the "Show Beam" provides the
necessary initial communication support for a corps size force. It
includes 10 officers and 241 enlisted personnel.

JCSE - Show Beam

JCSØØ